

FIG. 1

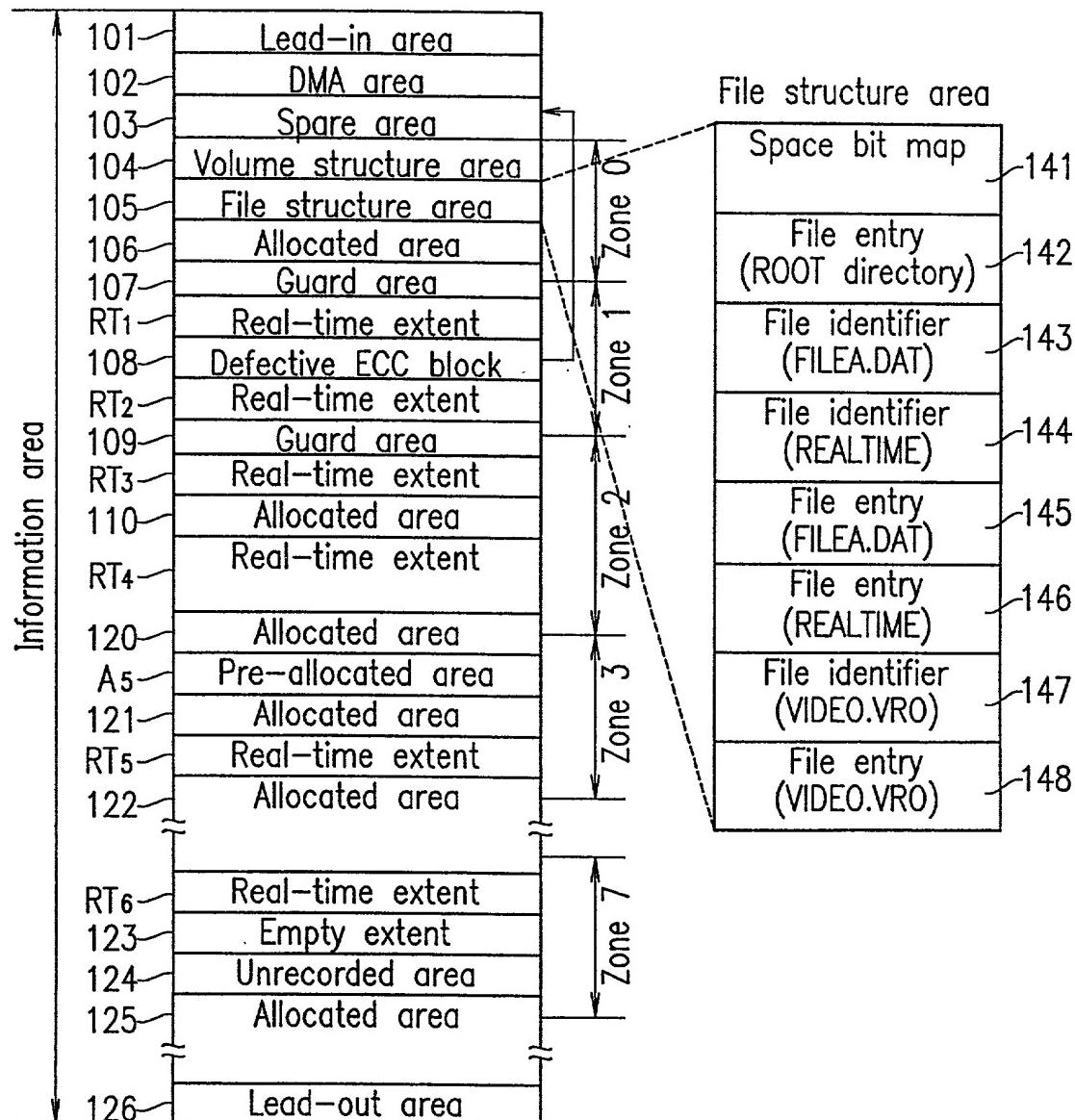
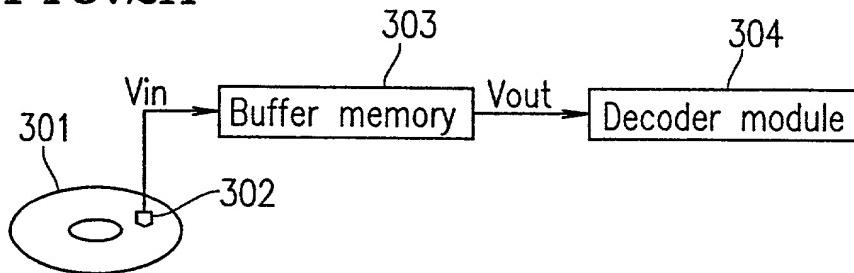
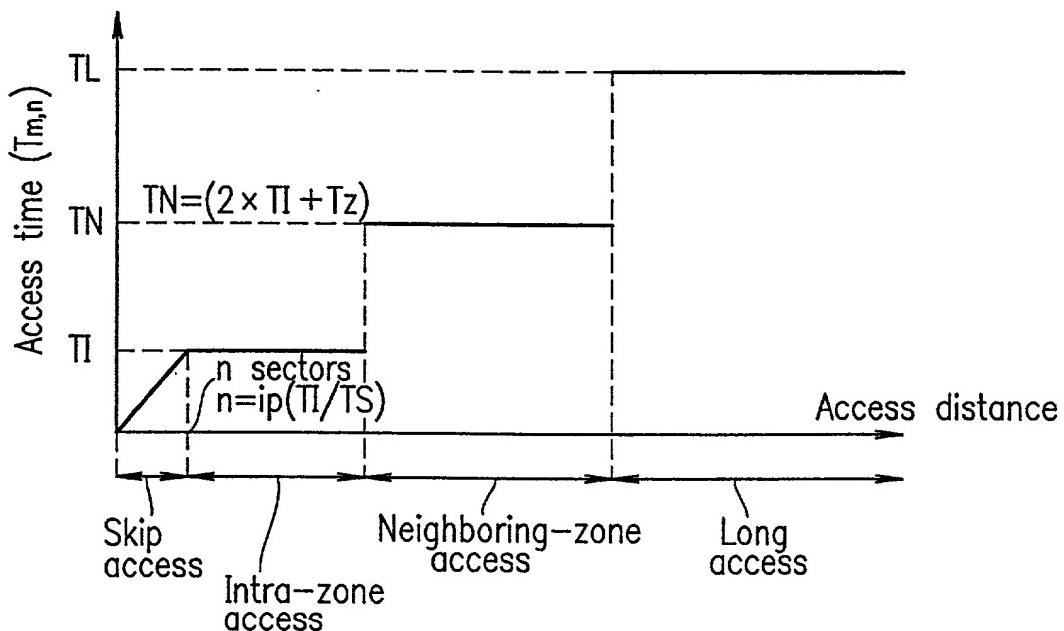


FIG. 2A

V_{in}: Data transfer rate from disk to buffer memory

V_{out}: Data transfer rate from buffer memory to decoder module

FIG. 2B

TZ: Zone boundary access time
 TS: Single sector latency

FIG. 3

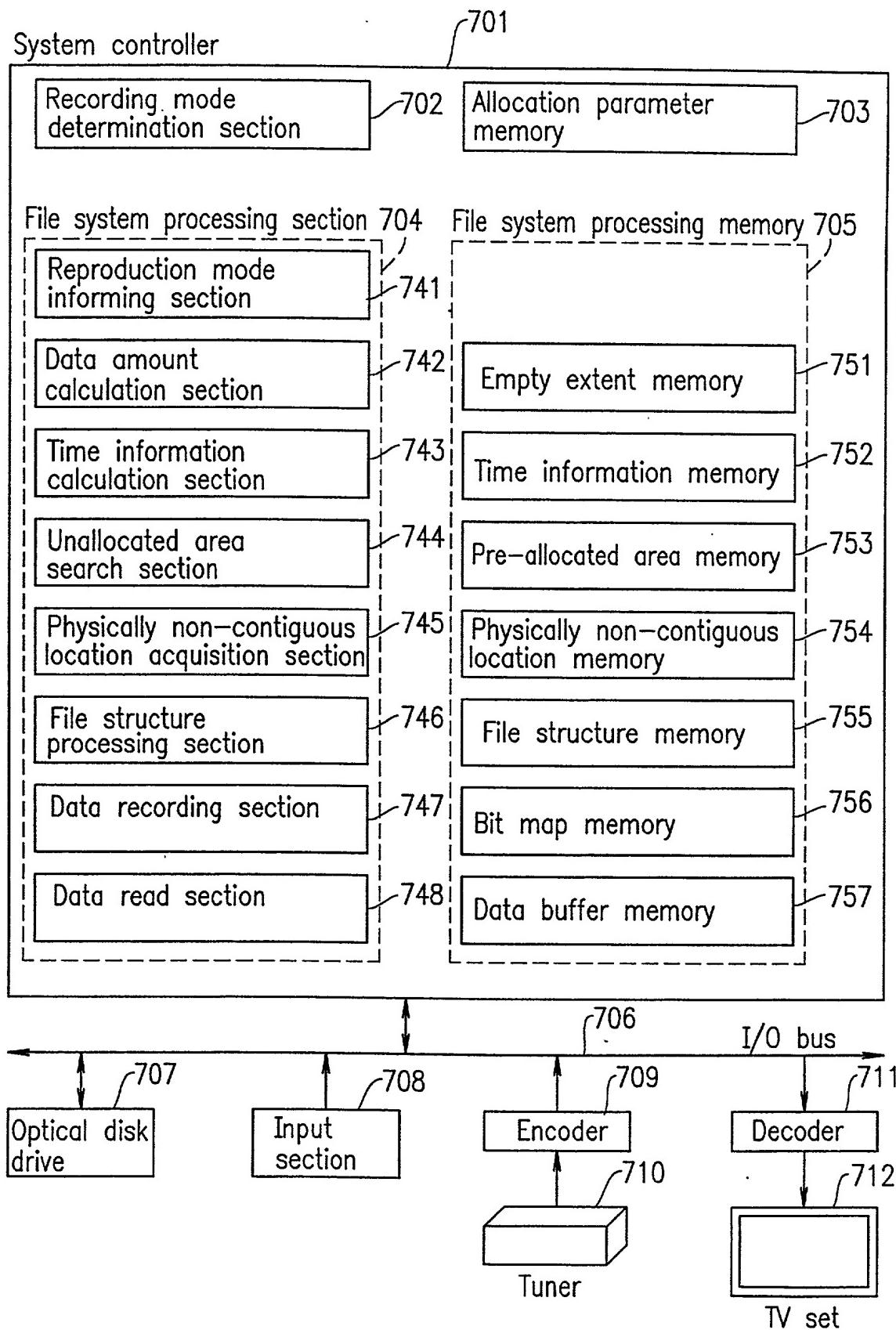


FIG. 4

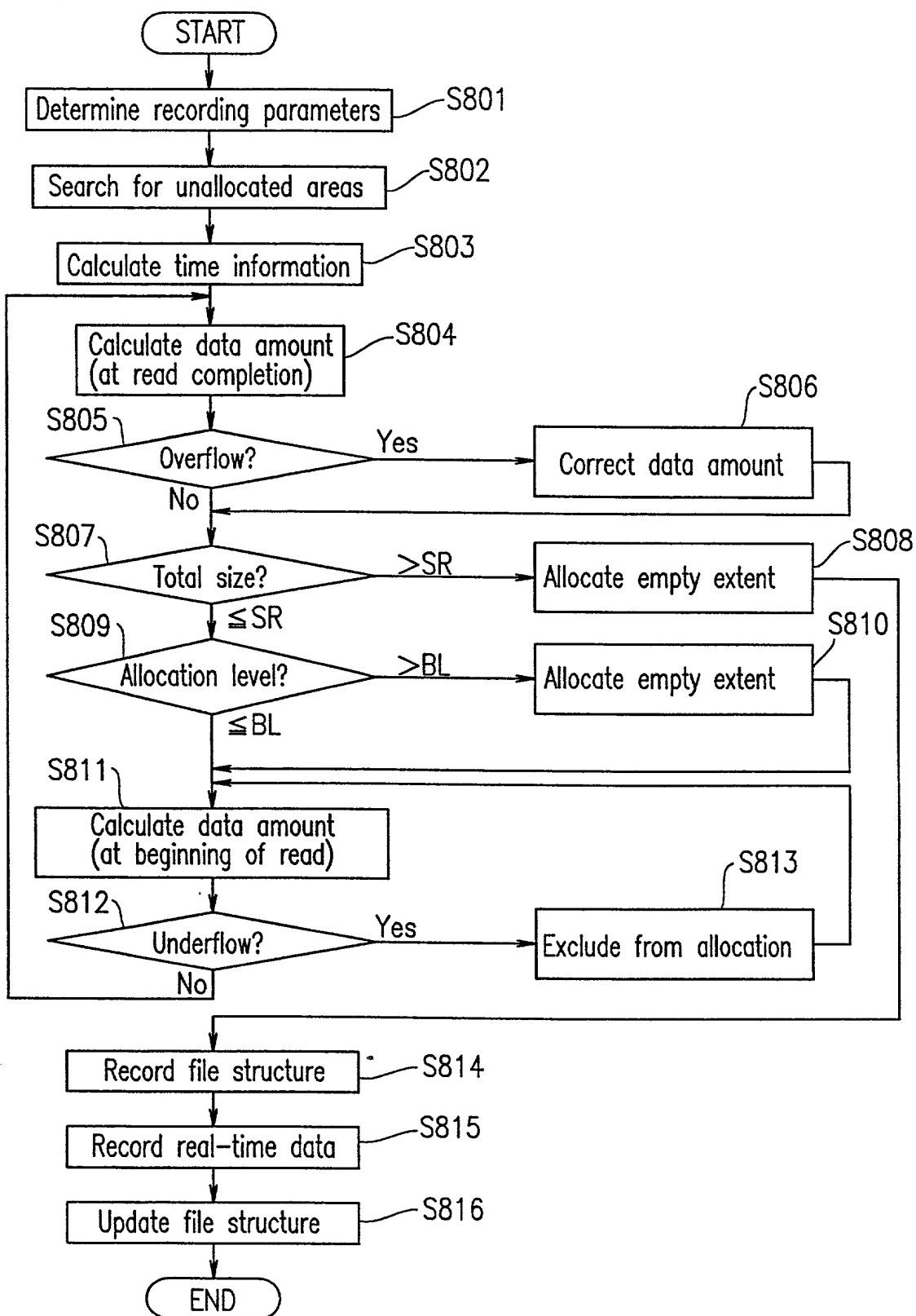
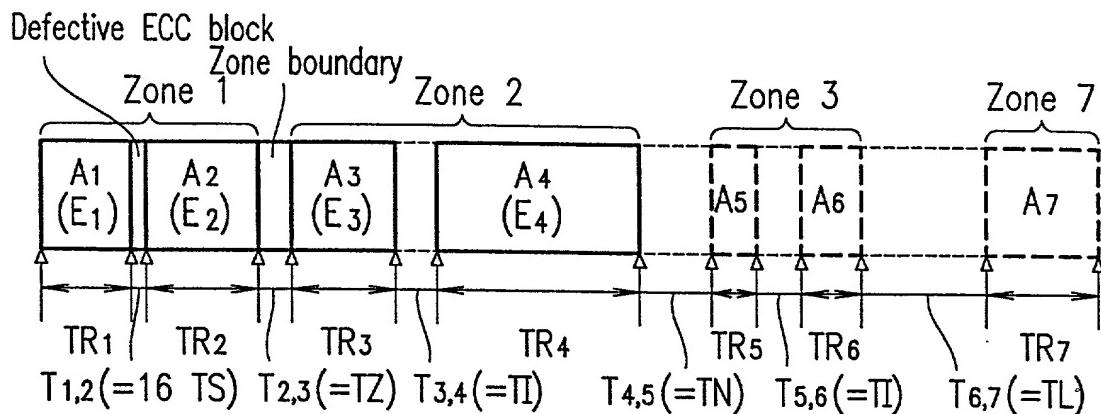
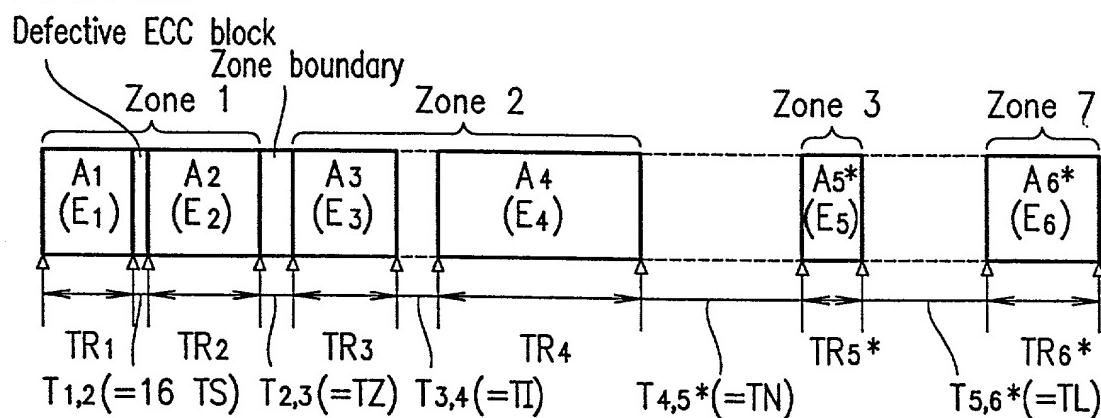
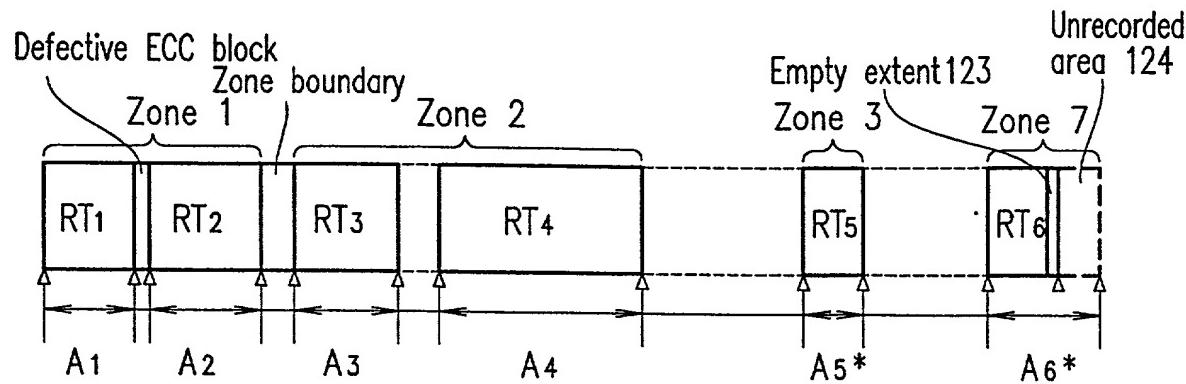


FIG.5A**FIG.5B****FIG.5C**

△:ECC block boundary

FIG. 6

Data amount
in buffer memory
 $B(t)$

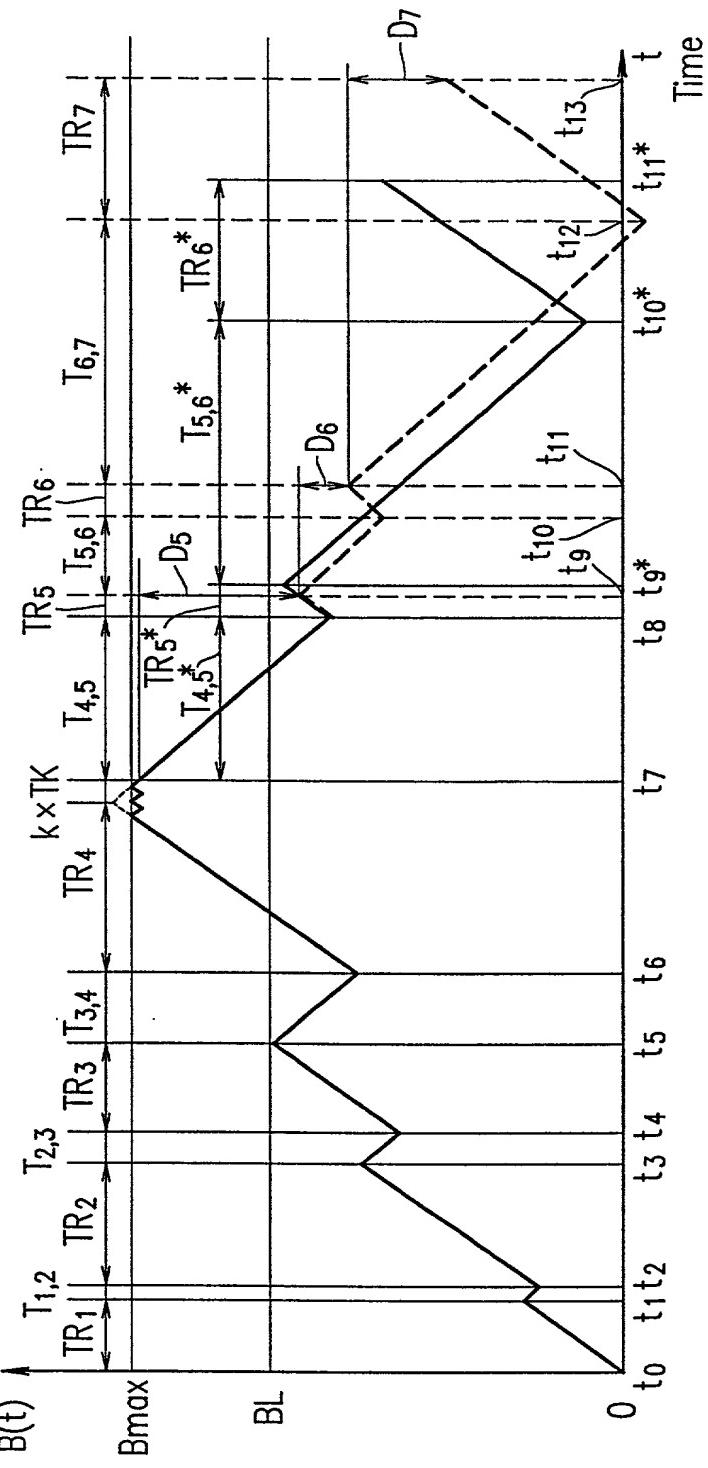


FIG. 7A

File entry

BP	Field name
0	Descriptor tag
16	ICB tag
...	...
56	Information length
...	...
112	Extended attribute ICB
...	...
168	Extended attribute length ($=\text{L_EA}$)
172	Length of allocation descriptor
176	Extended attribute
$\text{L_EA}+176$	Short allocation descriptor for RT ₁
$\text{L_EA}+184$	Short allocation descriptor for RT ₂
$\text{L_EA}+192$	Short allocation descriptor for RT ₃
$\text{L_EA}+200$	Short allocation descriptor for RT ₄
$\text{L_EA}+208$	Short allocation descriptor for RT ₅
$\text{L_EA}+216$	Short allocation descriptor for RT ₆
$\text{L_EA}+224$	Short allocation descriptor for empty extent

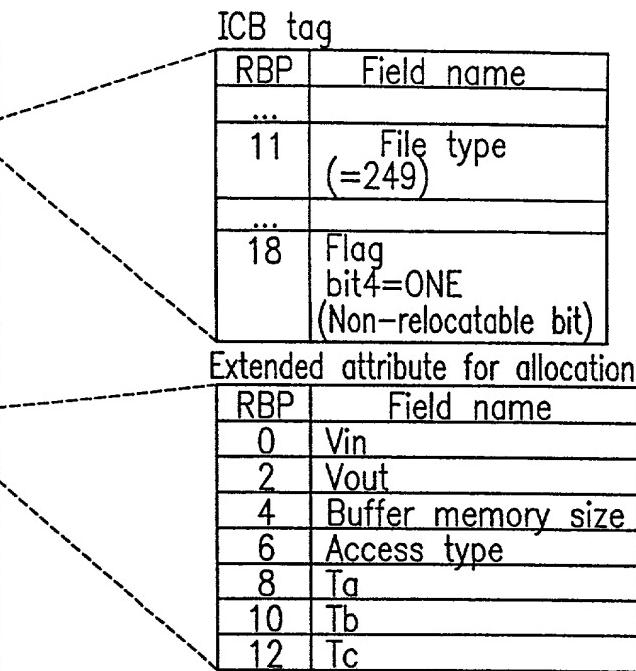


FIG. 7B

Short allocation descriptor

RBP	Field name
0	Extent length
4	Extent location

FIG. 7C

Meanings of 2 most significant bits of extent length

Value	Meaning
0	Allocated and recorded (real-time extent)
1	Allocated but unrecorded (empty extent)
3	Extent of subsequent allocation descriptor

FIG.8

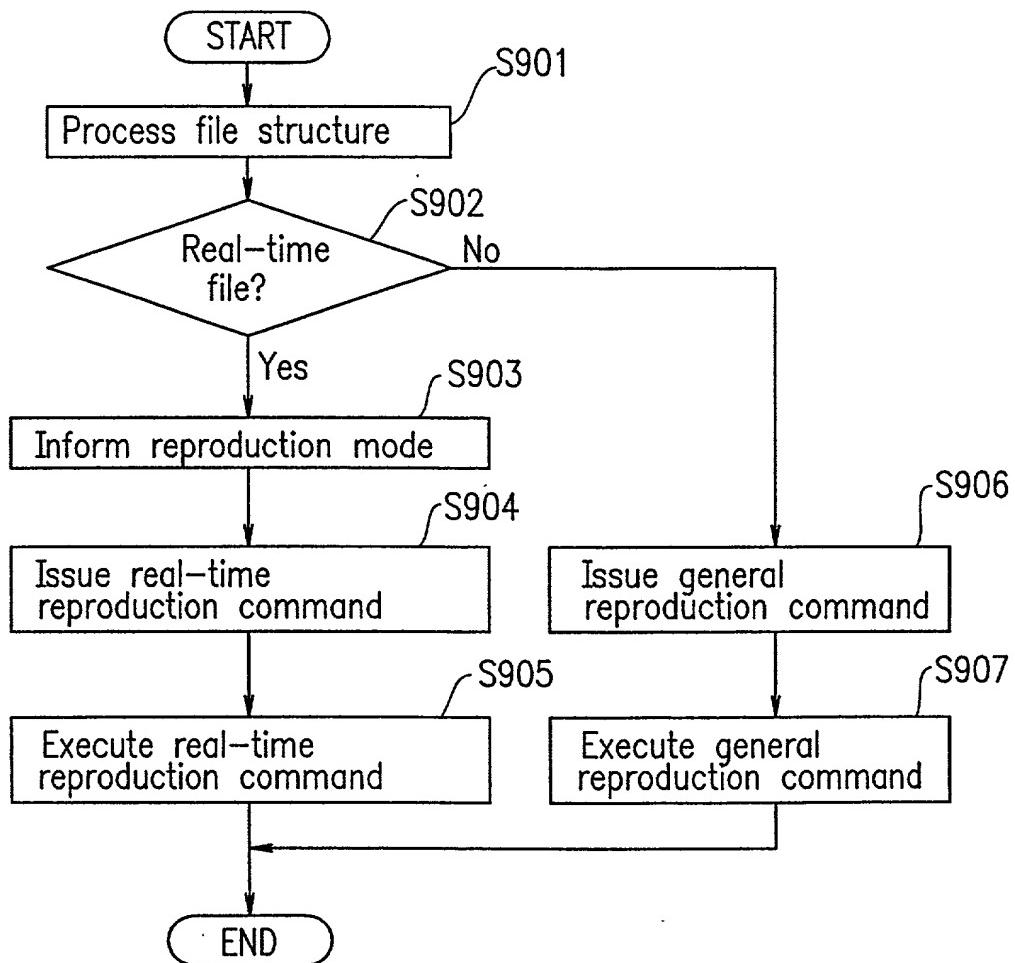


FIG. 9

System controller

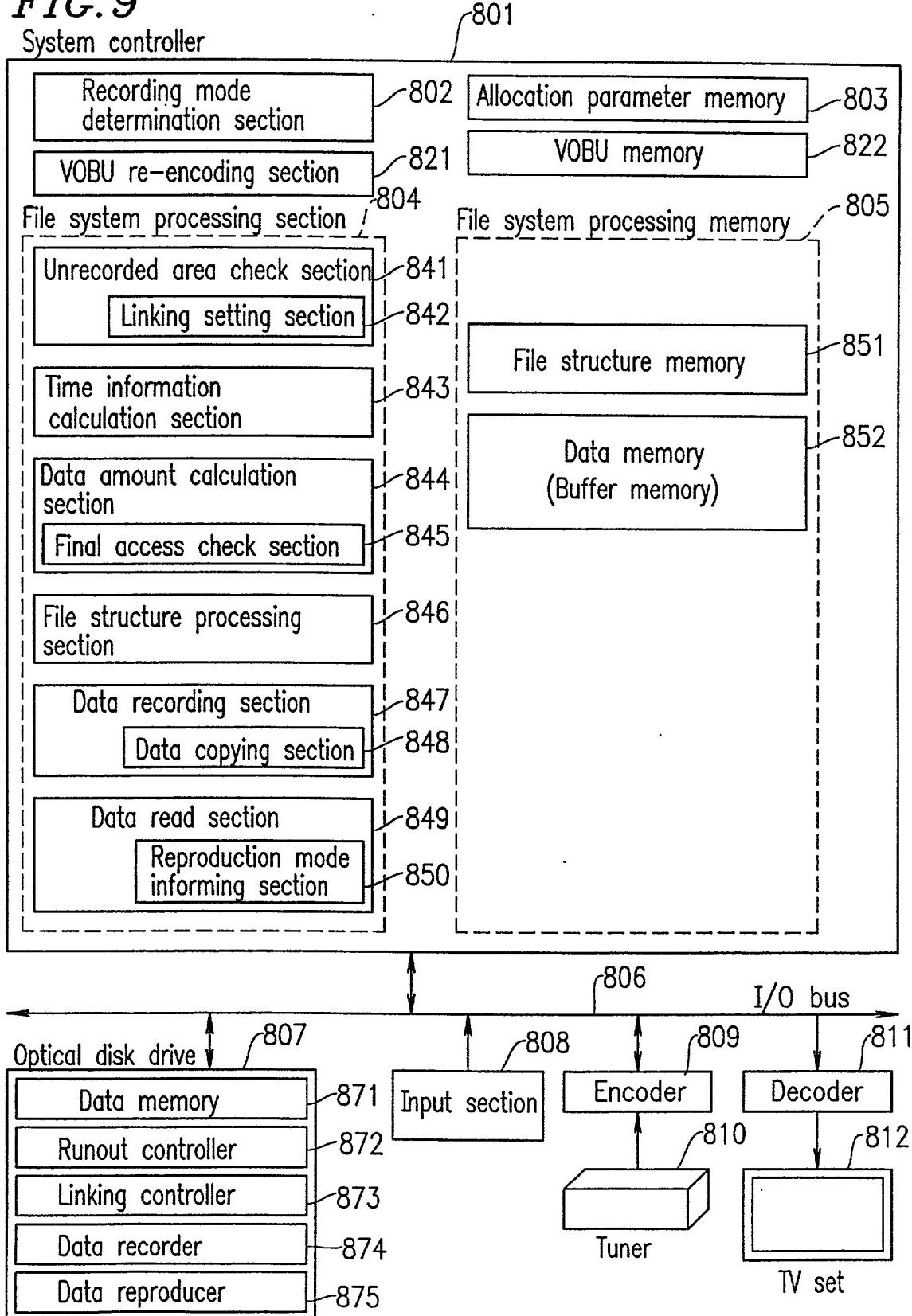
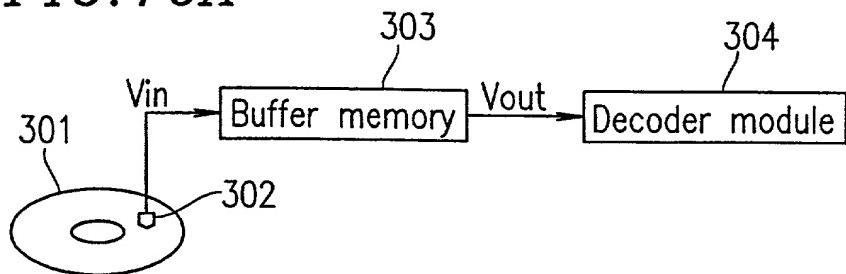
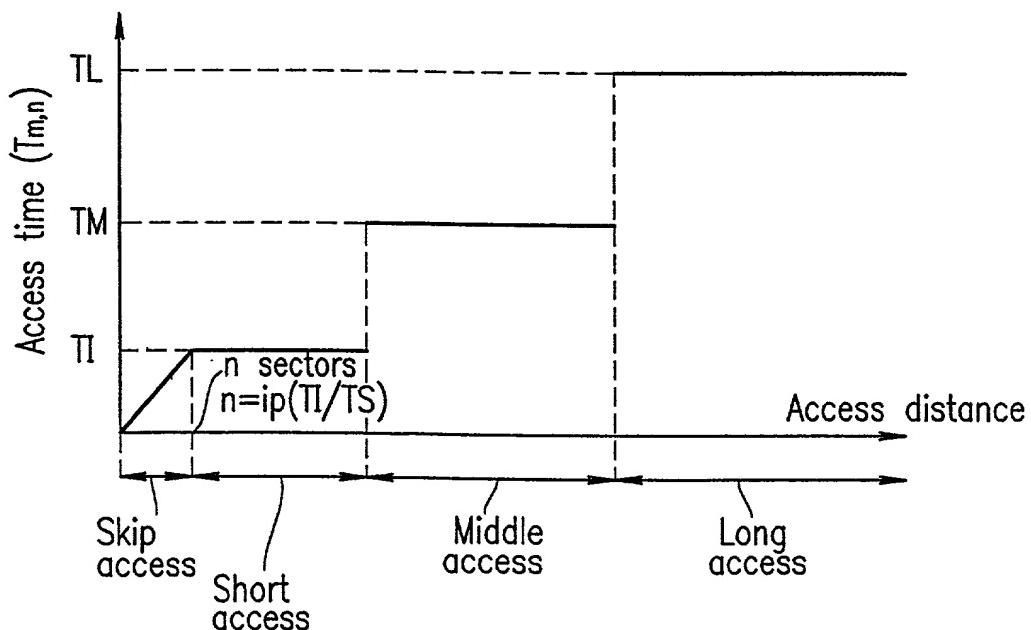


FIG. 10A

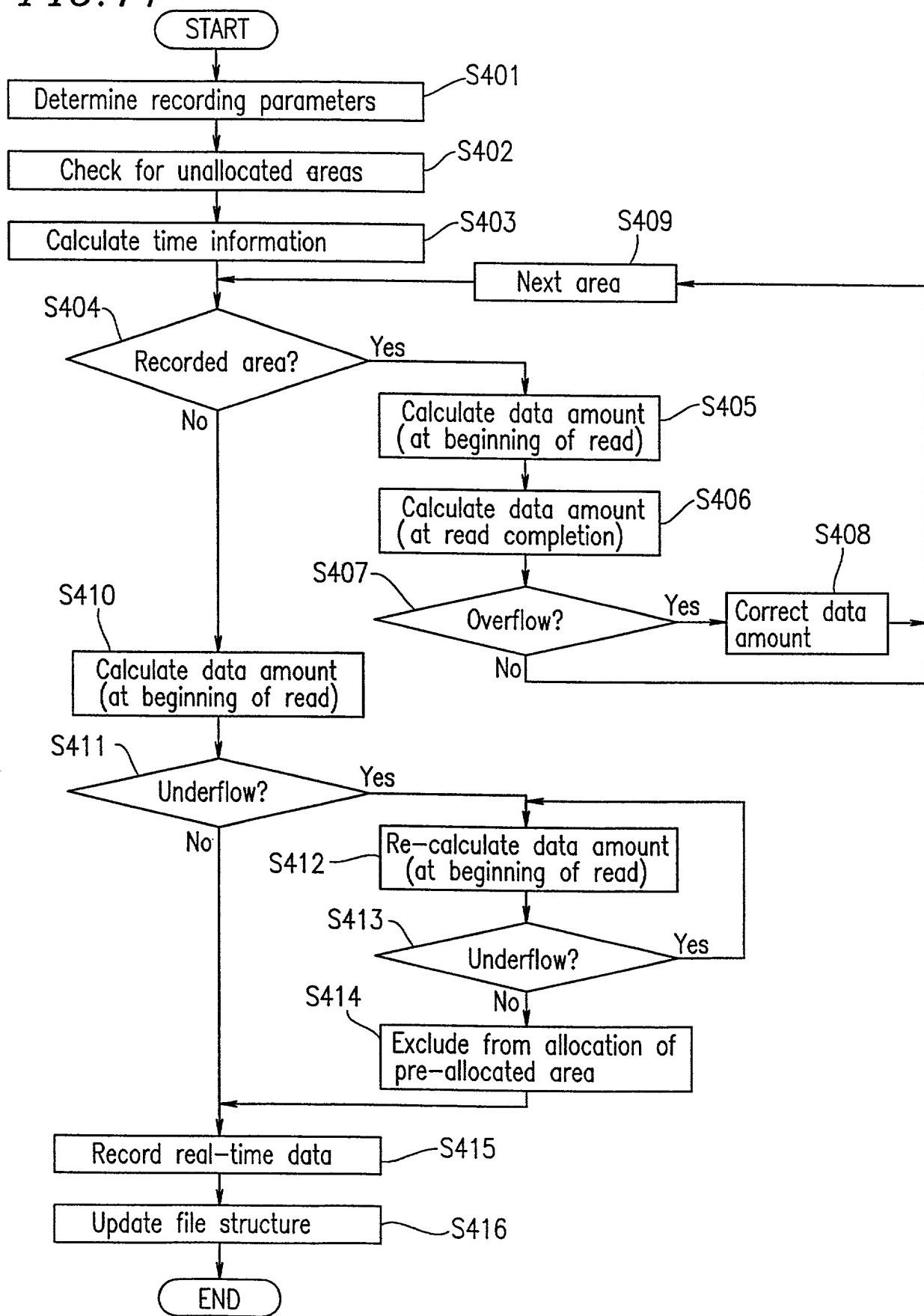
V_{in} : Data transfer rate from disk to buffer memory

V_{out} : Data transfer rate from buffer memory to decoder module

FIG. 10B

TS: Single sector latency

FIG. 11



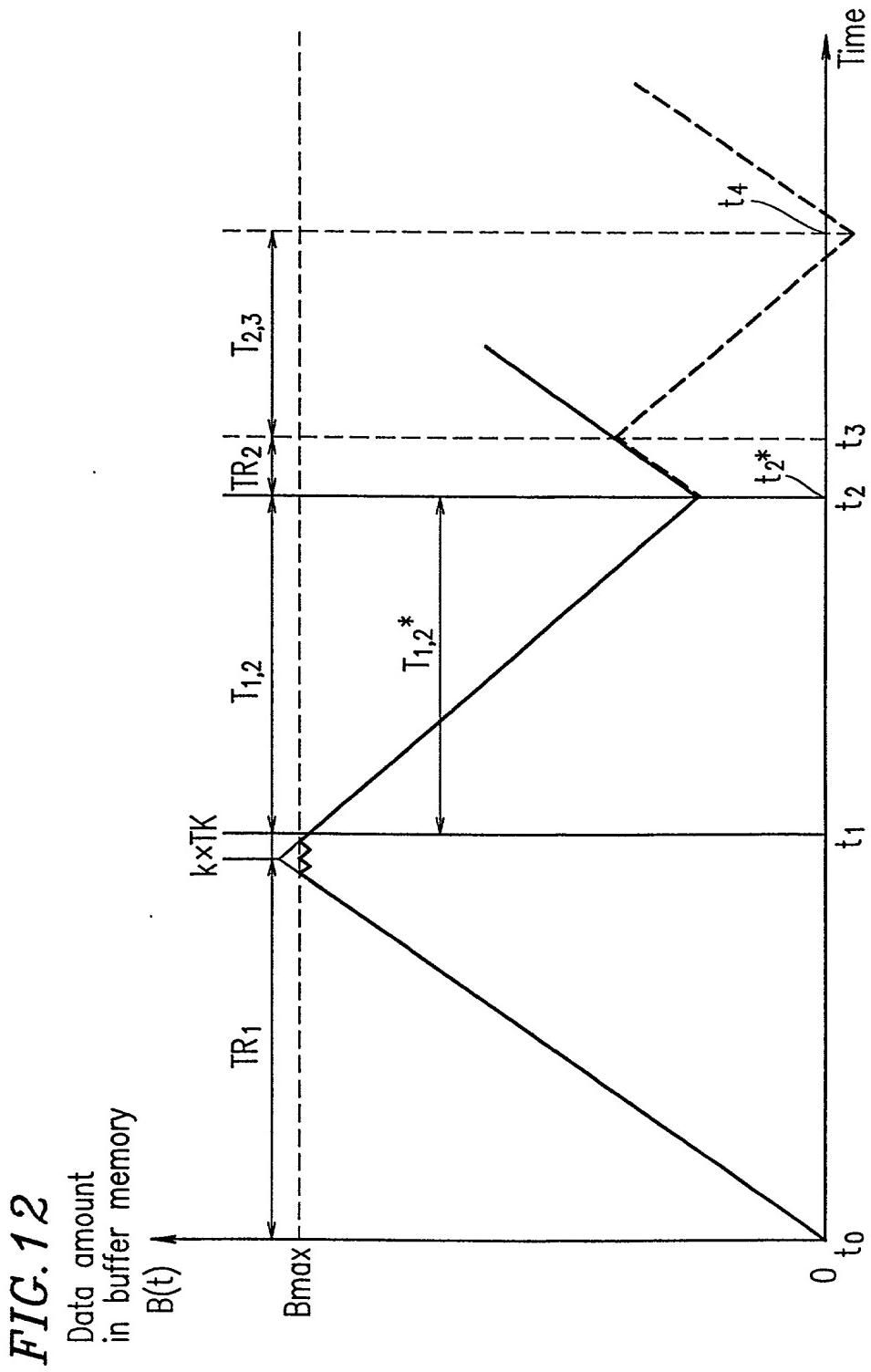
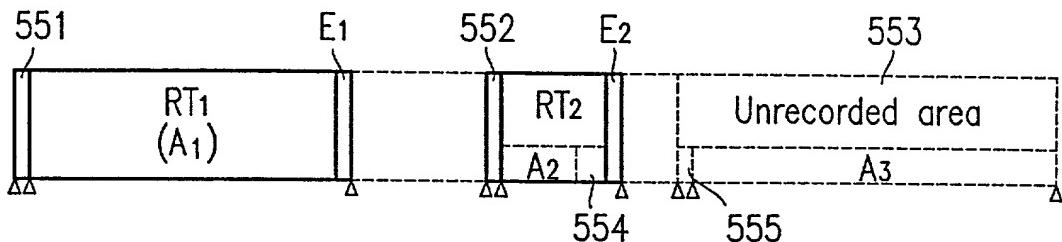
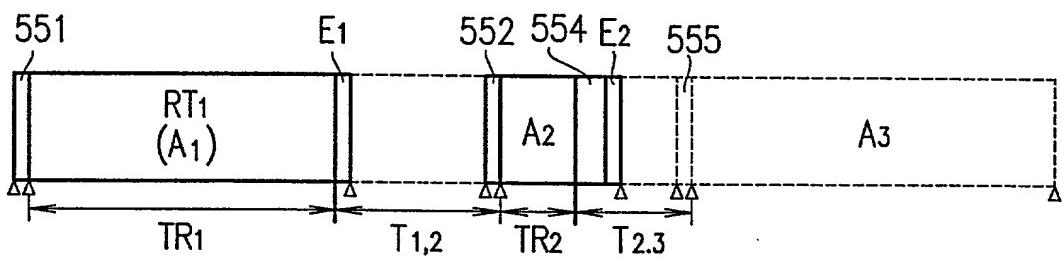
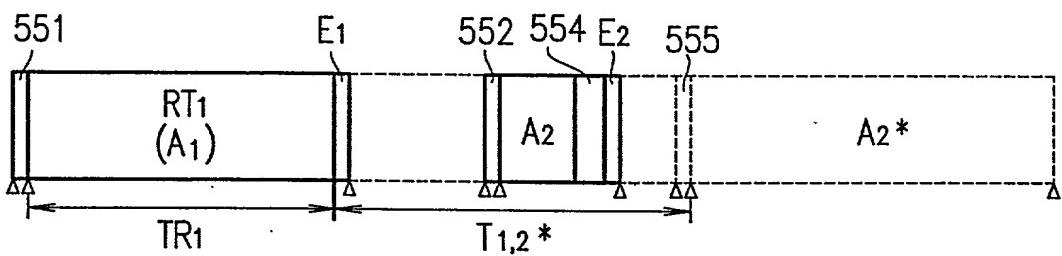
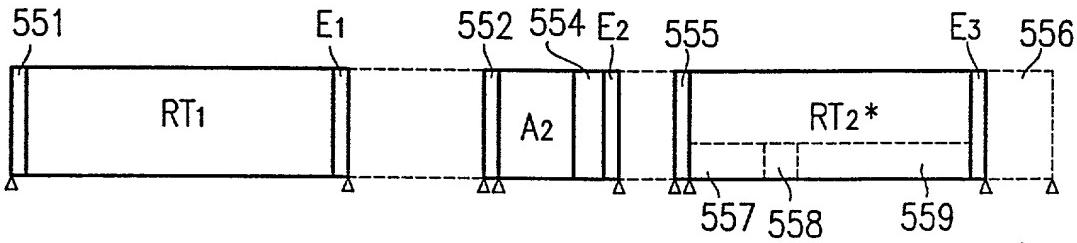


FIG. 13A**FIG. 13B****FIG. 13C****FIG. 13D**

△ : ECC block boundary

FIG. 14A

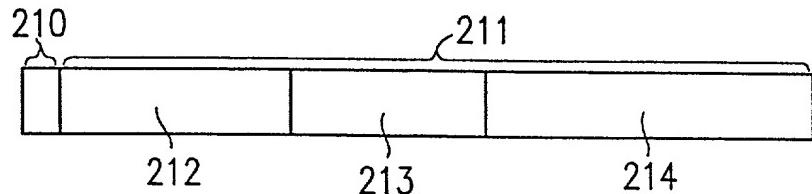


FIG. 14B

Sectors with data type bit = 1

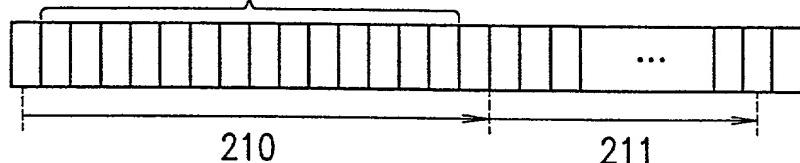


FIG. 14C

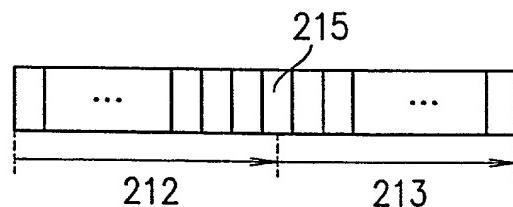


FIG. 14D

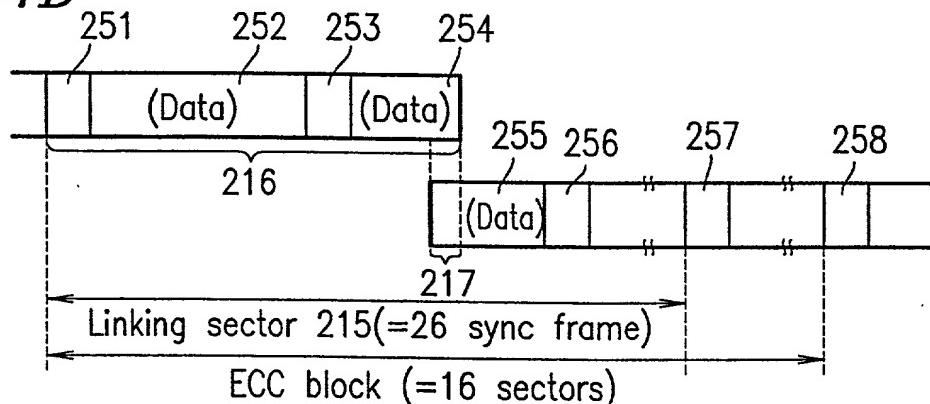


FIG. 14E

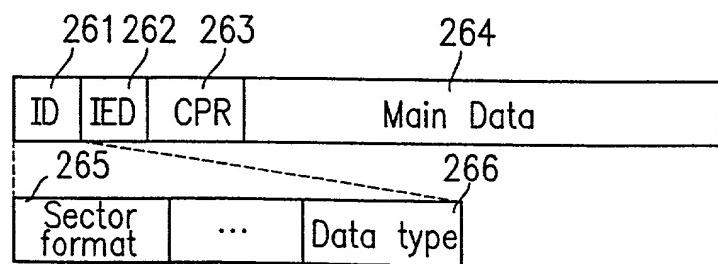


FIG. 15

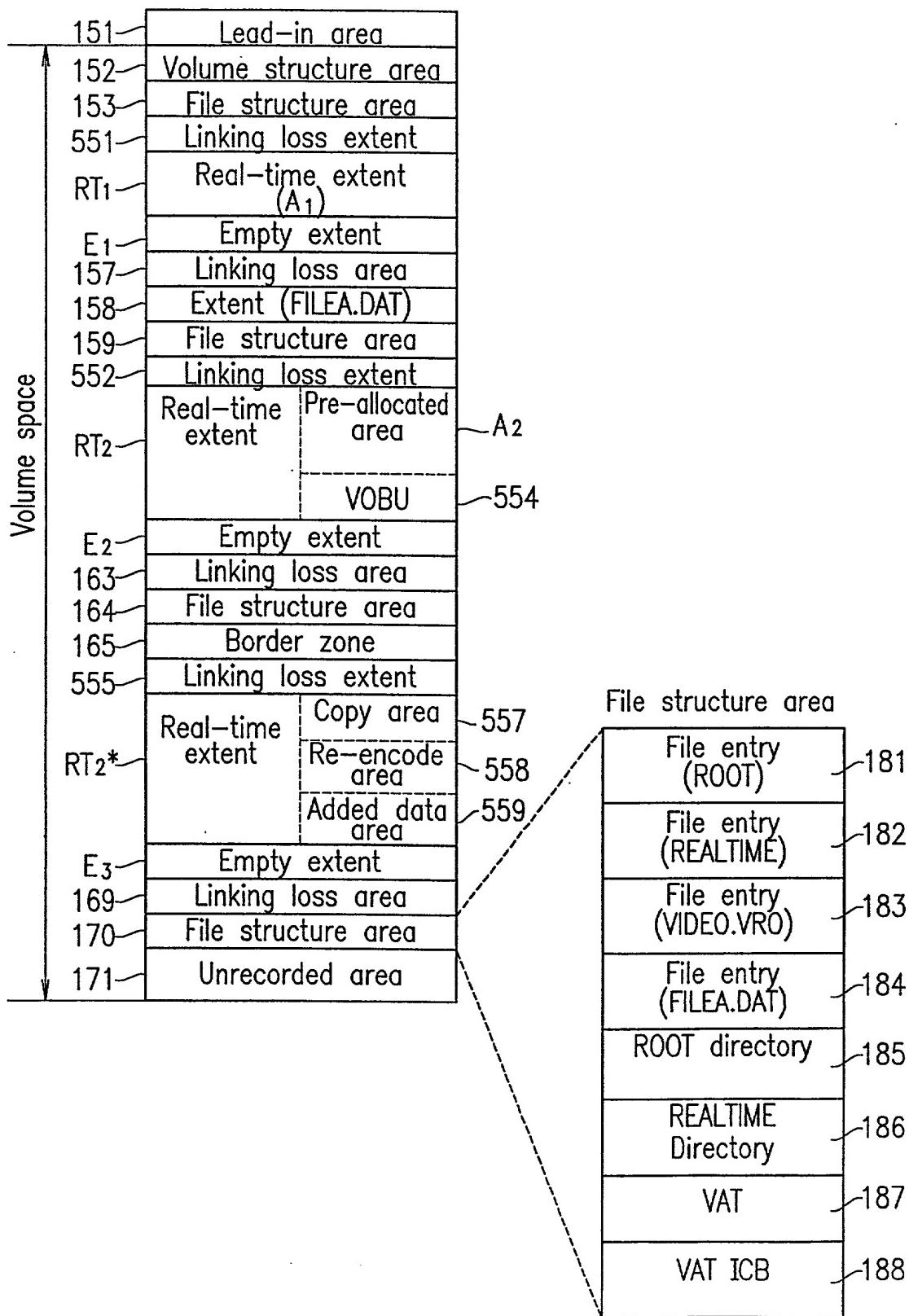


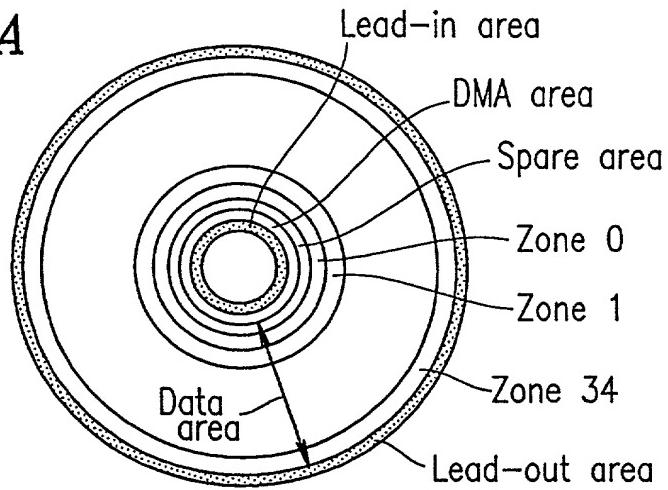
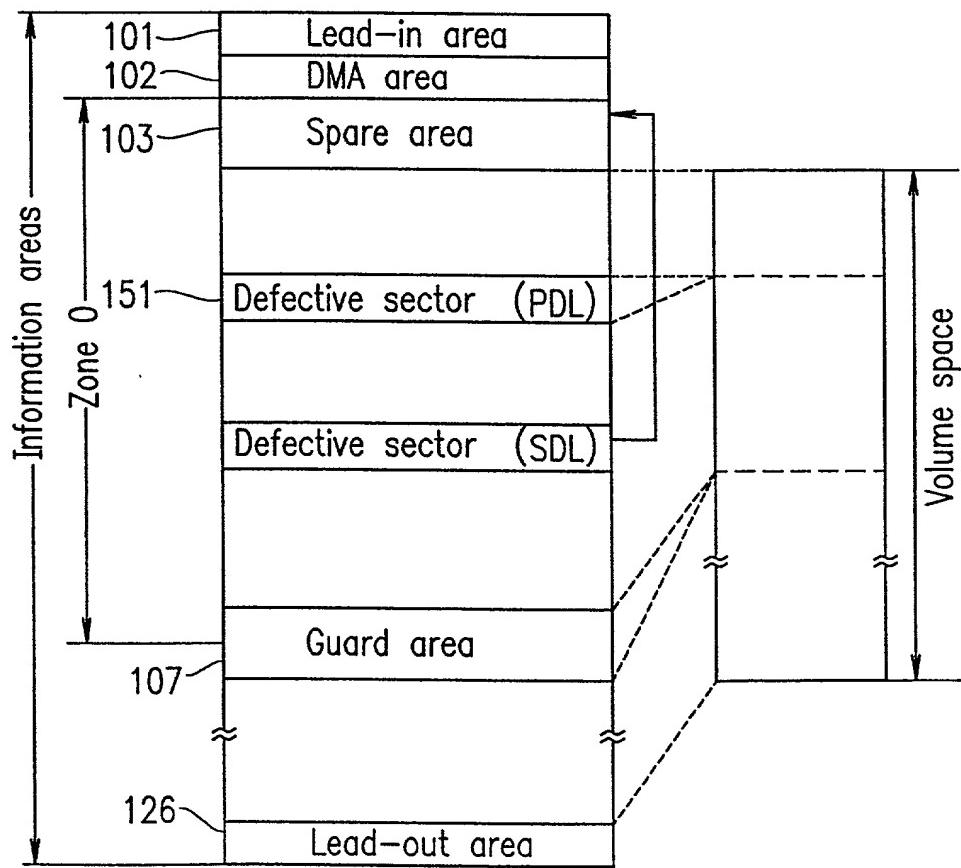
FIG. 16A*FIG. 16B*

FIG. 17

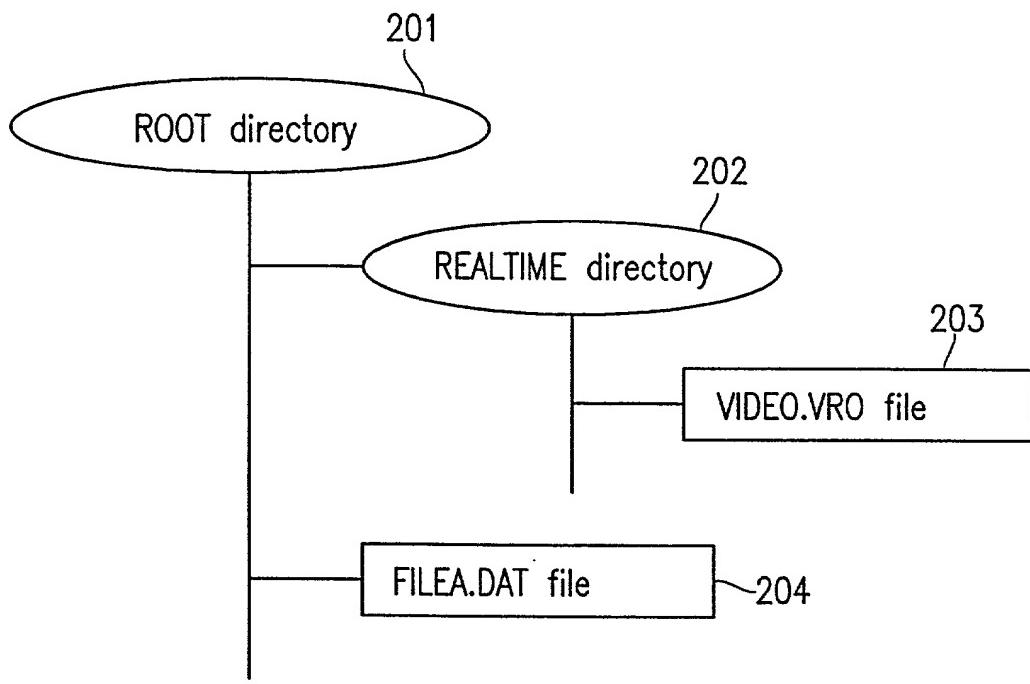
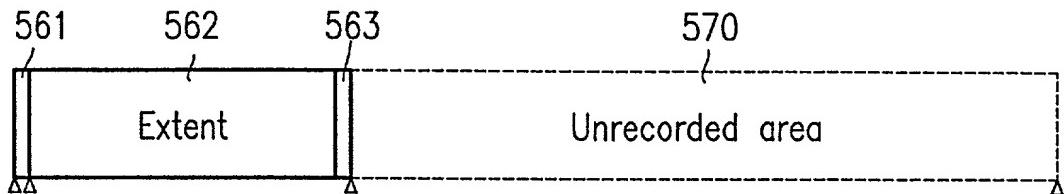
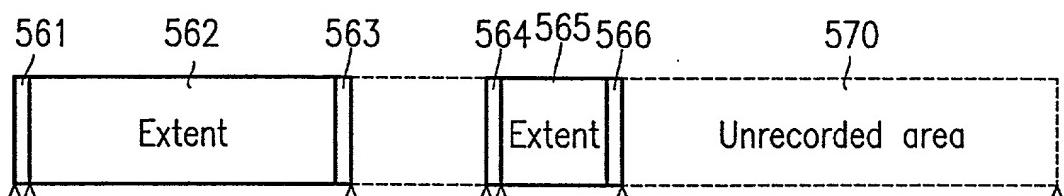
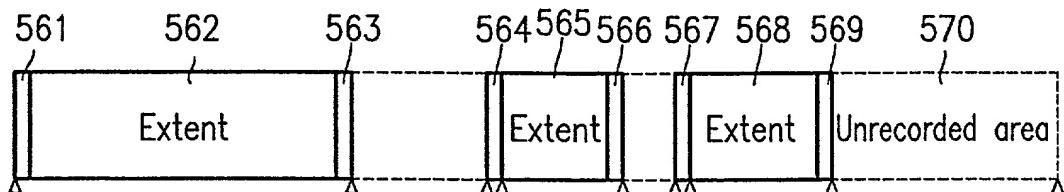
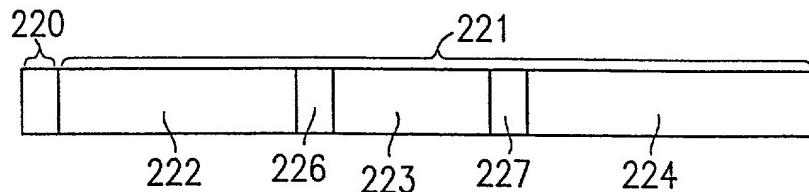
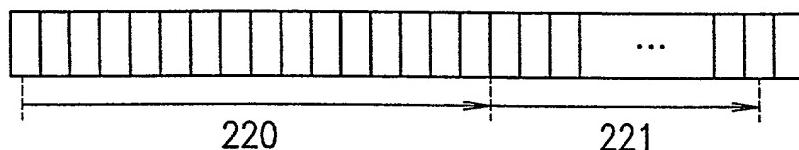
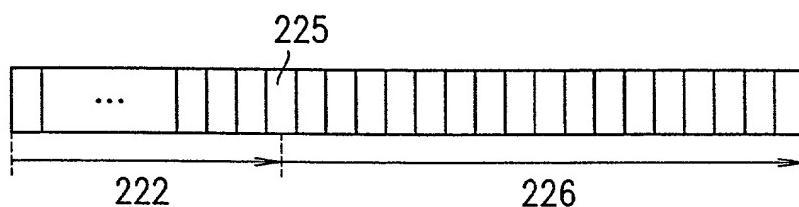


FIG. 18A*FIG. 18B**FIG. 18C*

△ :ECC block boundary

FIG. 19A*FIG. 19B**FIG. 19C**FIG. 19D*